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(54) METHOD OF MANUFACTURING  
SEMICONDUCTOR DEVICE

(57) Abstract:

PROBLEM TO BE SOLVED: To provide the manufacturing method of a semiconductor device by using an etching method for easily removing an etching stopper film and a hard mask when SiC is used as the materials of the etching stopper film and the hard mask.

SOLUTION: A first film formed of a material whose etching resistance differs from silicon carbide is formed on the semiconductor substrate. A second film formed of silicon carbide including hydrogen is formed on the first film. A resist film having an opening is formed on the second film. A resist film having an opening is formed on the second film. The second film is dry-etched with the resist film as a mask by using mix gas obtained by adding at least SF<sub>6</sub> or NF<sub>3</sub> to fluorocarbon gas. Then, the first film is etched with the second film as the mask.

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第1の実施例

